



DISCOVERY WORLD

BOY SCOUT WORKSHOPS

SEPT-DEC 2011

Discovery World is back with another season of Webelos Activity Badges and Boy Scout Merit Badge Workshops. This season the Workshops are more advanced – including more lab equipment, bigger experiments, guest speakers, and new labs. Workshops range from Robotics and Oceanography to Photography and Engineering.

Register online at <https://ols.discoveryworld.org> or by calling 414.765.8625



FRI | SEPT 9

Webelos Scientist

6-8pm \$10/Boy Scout | 2 Workshops Offered

Investigate Bernoulli's Principle, Pascal's Law, and Newton's first law of motion through hands-on demonstrations and experiments. After the Scouts show the effects of atmospheric, air, and water pressure they'll be able to talk to a scientist about his or her work.

SAT | SEPT 10

Electronics Merit Badge *

10am-5pm \$55 Member | \$60 Non-Member
3 Workshops Offered

Master the use of a soldering iron by creating your own audio or digital circuit. Scouts will learn how to read and draw a schematic diagram as well as visit Discovery World's circuit bending exhibit.

WED | SEPT 14

Webelos Engineer

6-8pm \$10/Boy Scout | 3 Workshops Offered

Construct a working circuit, design a floor plan, and build your own catapult while working towards the Engineer Badge. Scouts will also visit the Simple Machine exhibit at Discovery World and learn about the many different careers in engineering.

FRI | SEPT 16

Webelos Traveler

6-8pm \$10/Boy Scout | 2 Workshops Offered

Travel to the Eco-Driving exhibit to learn how much it costs to travel via car, bus, bike, or foot. Scouts will dissect local maps to learn how to navigate routes in their neighborhood and learn how to use a compass to get from here to there.

SAT | SEPT 17

Oceanography Merit Badge *

10am-5pm \$55 Member | \$60 Non-Member
2 Workshops Offered

Go behind the scenes at the Reiman Aquarium and discover how a marine operations department manages a massive freshwater and saltwater exhibit. Scouts will be able to demonstrate their understanding of underwater topography after visiting the Wave Tank and be able to describe and identify species within the oceanic food chain. Also included in the price of this Workshop is a special *S/V Denis Sullivan* Lake Watch!

SAT | SEPT 17 – SUN | SEPT 18

NEW Robotics Merit Badge *

10-5pm \$110 Member | \$120 Non-Member
2 Workshops Offered

Boy Scouts will design, build, program and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's

Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

WED | SEPT 21

Computers Merit Badge

5-9pm \$35 Member | \$40 Non-Member
3 Workshops Offered

Scouts will learn the ins and outs of computers by developing their own PowerPoints, spreadsheets, and Word documents. At the end of the Workshop, the Scouts will tour Discovery World to learn about numerous ways computers can be used in an innovation center.

FRI | SEPT 23

Webelos Geologist

6-8pm \$10/Boy Scout | 3 Workshops Offered

Discover how the Great Lakes Basin has changed over 4.5 billion years and how organisms in our area have changed over time. Scouts will learn how to identify rocks and minerals found in the Great Lakes Region and find out how these geological materials are used in building your own home.

* Please bring a lunch or money to buy lunch in the café.

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WED | SEPT 28 – THURS | SEPT 29

Model Design and Building Merit Badge

4-9pm \$70 Members | \$80 Non-Members

Models and prototypes help designers see what a space, structure, machine, or vehicle will look like before it is built life-size. Design a space of your own and create an architectural model in the brand new Kohl's Design It! Lab. Scouts will work side by side with design professionals to build a special-effects model of a fantasy spacecraft.

FRI | SEPT 30

Webelos Scientist

6-8pm \$10/Boy Scout | 3 Workshops Offered

Investigate Bernoulli's Principle, Pascal's Law, and Newton's first law of motion through hands-on demonstrations and experiments. After the Scouts show the effects of atmospheric, air, and water pressure they'll be able to talk to a scientist about his or her work.

SAT | OCT 1 – SUN | OCT 2

NEW Robotics Merit Badge *

10-5pm \$110 Member | \$120 Non-Member
2 Workshops Offered

Boy Scouts will design, build, program and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

WED | OCT 5

Weather Merit Badge

5-8pm \$25 Member | \$30 Non-Member
3 Workshops Offered

Are you a storm chaser? Have you ever wondered what causes wind, rain, hail, and lightning? In this clinic Scouts will perform experiments to understand just how scientific weather really is.

Scouts will start Requirement #8a during the Workshop and will need to complete their weather log; email or mail it in after completing the full requirement. Please email weather log to ksmith@discoveryworld.org or mail it to Discovery World Attn: Scouts, 500 N Harbor Drive, Milwaukee, WI 53202.

WED | OCT 5

Webelos Engineer

6-8pm \$10/Boy Scout | 2 Workshops Offered

Construct a working circuit, design a floor plan, and build your own catapult while working towards the Engineer Badge. Scouts will also visit the Simple Machine exhibit at Discovery World and learn about the many different careers in engineering.

* Please bring a lunch or money to buy lunch in the café.

FRI | OCT 7

Photography Merit Badge

5-9pm \$35 Member | \$40 Non-Member

Scouts will learn to shoot like the professionals and will leave Discovery World a confident photographer. Learn the basics of cameras and photography, take photo shoots around Discovery World, and then learn how to edit your photos in Photoshop®.

Scouts are encouraged to bring their own cameras but are not required.

FRI | OCT 7

Webelos Traveler

6-8pm \$10/Boy Scout | 2 Workshops Offered

Travel to the Eco-Driving exhibit to learn how much it costs to travel via car, bus, bike, or foot. Scouts will dissect local maps to learn how to navigate routes in their neighborhood and learn how to use a compass to get from here to there.

SAT | OCT 8

Chemistry Merit Badge *

10-3pm \$45 Member | \$50 Non-Member
3 Workshops Offered

Put on your safety goggles and gloves because this Merit Badge is about to get messy, and maybe even a little tasty! Scouts will perform experiments to uncover the secrets behind ionization, caramelization, chemical and physical reactions, and much more!

SAT | OCT 8

Photography Merit Badge

9am-1pm \$35 Member | \$40 Non-Member

2-6pm \$35 Member | \$40 Non-Member

Scouts will learn to shoot like the professionals and will leave Discovery World a confident photographer. Learn the basics of cameras and photography, take photo shoots around Discovery World, and then learn how to edit your photos in Photoshop®.

Scouts are encouraged to bring their own cameras but are not required.

WED | OCT 12

Webelos Scientist

6-8pm \$10/Boy Scout | 3 Workshops Offered

Investigate Bernoulli's Principle, Pascal's Law, and Newton's first law of motion through hands-on demonstrations and experiments. After the Scouts show the effects of atmospheric, air, and water pressure they'll be able to talk to a scientist about his or her work.

FRI | OCT 14

Entrepreneurship Merit Badge

5-9pm \$35 Member | \$40 Non-Member
3 Workshops Offered

Do you think you have a good idea? Well, now it's time to make money off that idea! Learn how to identify your business goals, market your idea, and finance your business. Entrepreneurship may be just the thing for you!

Scouts will need to complete Requirement #6 after

the Workshop and show evidence (receipts, pictures, invoices, etc) of completed requirement. Please email Requirement #6 proof to ksmith@discoveryworld.org or mail it to Discovery World Attn: Scouts, 500 N Harbor Drive, Milwaukee, WI 53202.

TUE | OCT 18 – THUR | OCT 20

NEW Robotics Merit Badge

4-9pm \$110 Member | \$120 Non-Member
2 Workshops Offered

Boy Scouts will design, build, program and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

WED | OCT 19

Graphic Arts Merit Badge

5-9pm \$35 Member | \$40 Non-Member

Learn the art of screen printing and print your own bag or t-shirt. Scouts will use a combination of old and new graphic design techniques as they create their own logos, designs, and posters. You will leave Discovery World a Graphic Designer!

FRI | OCT 21

Nuclear Science Merit Badge

5-9pm \$35 Member | \$40 Non-Member
2 Workshops Offered

Explore Discovery World's nuclear reactor model and find out how energy is created, stored, and then used. After learning the basics of nuclear fission, Scouts will design and create their own model of a nuclear reactor to take home.

SAT | OCT 22

Webelos Communicator

9am-12pm \$15/Boy Scout

1-4pm \$15/Boy Scout

2 Workshops Offered for Both Times

Why tune into your radio when you can tour a real radio station! Would you rather communicate via telephone or secret-coded letters? Scouts will tour a radio station, earn their Computer Belt Loop, and invent their own secret code!

THUR | OCT 27 – FRI | OCT 28

COME TO DISCOVERY WORLD OVER TEACHER'S CONVENTION WEEKEND!

New Robotics Merit Badge *

10-5pm \$110 Member | \$120 Non-Member
2 Workshops Offered

Boy Scouts will design, build, program, and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

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DISCOVERY WORLD

FRI | OCT 28

Webelos Engineer

6-8pm \$10/Boy Scout | 3 Workshops Offered

Construct a working circuit, design a floor plan, and build your own catapult while working towards the Engineer Badge. Scouts will also visit the Simple Machine exhibit at Discovery World and learn about the many different careers in engineering.

SAT | OCT 29

Engineer Merit Badge *

10am-3pm \$45 Member | \$50 Non-Member
3 Workshops Offered

Engineering can be found everywhere you turn at Discovery World! Learn more about the genius that created the modern world by recreating some of Nicola Tesla's electrifying inventions. Scouts will also perform experiments to show how to convert energy and conduct electricity.

TUE | NOV 8 – THUR | NOV 10

NEW Robotics Merit Badge

4-9pm \$110 Member | \$120 Non-Member
ALL 3 DAYS 2 Workshops Offered

Boy Scouts will design, build, program and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

FRI | NOV 11

Webelos Scientist

6-8pm \$10/Boy Scout | 2 Workshops Offered

Investigate Bernoulli's Principle, Pascal's Law, and Newton's first law of motion through hands-on demonstrations and experiments. After the Scouts show the effects of atmospheric, air, and water pressure they'll be able to talk to a scientist about his or her work.

SAT | NOV 12

Electricity Merit Badge *

10-3pm \$45 Member | \$50 Non-Member
3 Workshops Offered

Discover the secrets of electricity by making an electro-magnet, a light switch, and a rheostat. Learn how to rescue someone touching a live wire, and learn what to do during an electrical storm! You will also learn what makes the eel at Discovery World electric!

Scouts will need to complete Requirements #2 and #8 prior to attending the Workshop. Please bring proof of completion to the Workshop so the Merit Badge Counselor can sign off on the Blue Card.

* Please bring a lunch or money to buy lunch in the café.

WED | NOV 16

Weather Merit Badge

5-8pm \$25 Member | \$30 Non-Member
3 Workshops Offered

Are you a storm chaser? Have you ever wondered what causes wind, rain, hail, and lightning? In this Workshop Scouts will perform experiments to understand just how scientific weather really is.

Scouts will start Requirement #8a during the Workshop and will need to complete their weather log and email or mail it in after completing the full requirement. Please email weather log to ksmith@discoveryworld.org or mail it to Discovery World Attn: Scouts, 500 N Harbor Drive, Milwaukee, WI 53202.

FRI | NOV 18 FRI 7PM – SAT 7AM

Boy Scout Sleepover Pilot House

\$35/Scout | \$10/Chaperone

Boy Scouts will take over Discovery World for one full evening of adventure and discovery. Scouts of all ages are invited to explore the museum, participate in an interactive lab, pet the stingrays in the Touch Tank, and settle into sleeping bags while watching a movie. Please call the Scout Coordinator at 414.765.8764 for more details.

FRI | NOV 25

Inventors Merit Badge *

10-5pm \$55 Member | \$60 Non-Member
3 Workshops Offered

How do you turn an idea into a real-life product? Can you invent the next best thing since sliced bread? Scouts will learn the design process while they design and create their own invention. They will work side by side with professional designers to build their prototype. Who knows – maybe it will be worth a million bucks!

SAT | NOV 26

Energy Merit Badge

9-1pm \$35 Member | \$40 Non-Member
2 Workshops Offered

Can you guess how much coal is on the Wall of Coal at Discovery World? Explore Discovery World's model nuclear reactor, wind turbines, and human hamster wheels. Come see where your energy comes from and where it is going!

Scouts must complete the following requirement prior to coming to the Workshop in order to get their Blue Card signed: Requirement #4. Please bring proof of completed requirements to Workshop.

FRI | NOV 25 – SAT | NOV 26

Radio Merit Badge *

10-5pm \$110 Member | \$120 Non-Member
2 Workshops Offered

Learn all about radios! Discover how radio transmissions travel, what call letters mean, and how to draw a block diagram of a radio station. We will also travel to a radio station to learn more about the real equipment used, what licensing is required to operate a radio station, and what career choices are available.

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Oceanography Merit Badge *

10am-5pm \$55 Member | \$60 Non-Member
2 Workshops Offered

Go behind the scenes at the Reiman Aquarium and discover how a marine operations department manages a massive freshwater and saltwater exhibit. Scouts will be able to demonstrate their understanding of underwater topography after visiting the Wave Tank and be able to describe and identify species within the oceanic food chain.

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SAT | DEC 3

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Investigate Bernoulli's Principle, Pascal's Law, and Newton's first law of motion through hands-on demonstrations and experiments. After the Scouts show the effects of atmospheric, air, and water pressure they'll be able to talk to a scientist about his or her work.

SAT | DEC 10 – SUN | DEC 11

NEW Robotics Merit Badge *

10-5pm \$110 Member | \$120 Non-Member
BOTH DAYS 2 Workshops Offered

Boy Scouts will design, build, program, and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

WED | DEC 14

Nuclear Science Merit Badge

5-9pm \$35 Member | \$40 Non-Member
3 Workshops Offered

Explore Discovery World's nuclear reactor model and find out how the energy is created, stored, and then used. After learning the basics of nuclear fission, Scouts will design and create their own model of a nuclear reactor to take home.

FRI | DEC 16

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6-8pm \$10/Boy Scout | 2 Workshops Offered

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10am-5pm \$55 Member | \$60 Non-Member
2 Workshops Offered

Master the use of a soldering iron by creating your own audio or digital circuit. Scouts will learn how to read and draw a schematic diagram, as well as visit Discovery World's circuit bending exhibit.

MON | DEC 19 – WED | DEC 21

NEW Robotics Merit Badge

4-9pm \$110 Member | \$120 Non-Member
ALL 3 DAYS 2 Workshops Offered

Boy Scouts will design, build, program, and test their own robot using Lego® Mindstorm NXTs™. Scouts will also visit Discovery World's Rockwell Automation exhibit and learn about human-robot interface, robotic mobility, and robotic sensors. Friends and family will be invited to watch during the last half hour of the Workshop as Scouts test their robots on the challenge course.

* Please bring a lunch or money to buy lunch in the café.



Included in the price of a Boy Scout Workshop is admission to Discovery World. Parents/guardians are welcome to watch the Workshop free of charge. If Scout family members would like to explore Discovery World the day of the Workshop (when Discovery World is open to the public), prices for admission are \$12 for an adult and \$8 for a child. Please mention the discount code SCT01 when purchasing admission tickets at the Admissions Booth.

For questions about Workshop content and activities, or to set up your own private Workshop, please call the Scout Coordinator at 414.765.8764. A minimum of 10 participants is required for a private Workshop.

Register online at <https://ols.discoveryworld.org> or by calling 414.765.8625



Don't forget your punch card!

For every 2 hours spent in a Boy Scout Workshop, you will receive one punch on your Boy Scout Punch Card. Gather 10 punches and redeem your card for \$10 OFF your next Boy Scout Workshop.

Special Notes:

- Please see the Admission Booth to get your special Scout Parking Discount (\$5/car).
- Boy Scouts participating in the Merit Badge Workshops need to bring their own Blue Cards.
- Don't forget to purchase your unique Discovery World Scout Patch in the gift shop!
- Only Boy Scouts are allowed to participate in the Discovery World Boy Scout Workshops.

Cancellation Policy

In order to reserve your spot, you must either call the Reservations Department at 414.765.8625 or register online at <https://ols.discoveryworld.org>. Within two weeks of the Workshop, if you have not paid in full, you will lose your reservation.

1. In order to receive a full refund for any registration YOU cancel, the cancellation must be received at least ten (10) days before the start of the Workshop.
2. Cancellations received less than ten (10) days before the Workshop start date, but before the class start date, will be granted Discovery World Education Department programming credit equivalent to 75% of tuition, not including any material fees.
3. A cancellation received on or after the Workshop start date will receive no refund or credit.

A Workshop can be cancelled if it does not meet the minimum attendance threshold. In the event that fewer Scouts register than is required for a class to take place, Discovery World will notify parents of this situation before the start date and offer alternative classes or refunds. All final registration decisions will be made no later than five (5) days before the Workshop start date.

Volunteer Today!

To earn volunteer hours, Scouts are welcome and encouraged to help us out! Call 414.765.8764 and we'll figure out the perfect way for you to become more involved in our Boy Scout Workshops.

500 North Harbor Drive
Milwaukee, WI 53202
www.discoveryworld.org

DISCOVERY WORLD
innovation | technology | environment
It's where we're going